

**IN THE CLAIMS:**

***Please cancel Claims 1-36.***

***Please add the following new claims:***

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37. A pharmaceutical composition for treating plasmodium parasitemia in a mammal, said composition comprising:

an isolated p42 polypeptide in combination with an adjuvant selected from the group consisting of QS-21 and ISA51 and mixtures thereof.

38. The pharmaceutical composition of Claim 37, further comprising a pharmaceutically acceptable carrier.

39. The pharmaceutical composition of Claim 37, wherein said isolated p42 polypeptide is expressed by an insect cell which contains a vector that encodes said polypeptide, and wherein said polypeptide is more immunogenic in a mammalian host than is the same polypeptide expressed in yeast.

40. The pharmaceutical composition of Claim 39, wherein said insect cell is selected from the group consisting of *Spodoptera frugiperda*, *Spodoptera exiaua*, *Choristoneura fumiferana*, *Trichoplusia ni* and *Spodoptera littoralis*.

41. The pharmaceutical composition of Claim 39, wherein said isolated p42 polypeptide is a *Plasmodium falciparum* polypeptide.

42. The pharmaceutical composition of Claim 41, wherein said *Plasmodium falciparum* polypeptide is an allelic form selected from the group consisting of MAD, K1, and Wellcome.

43. The pharmaceutical composition of Claim 37, wherein the transmembrane domain of said isolated p42 polypeptide is deleted.

44. The pharmaceutical composition of Claim 37, wherein said isolated p42 polypeptide is fused to a second polypeptide.

45. The pharmaceutical composition of Claim 44, wherein said second polypeptide is a leader sequence fused to the amino terminus of said isolated p42 polypeptide.

46. The pharmaceutical composition of Claim 39, wherein said vector is a baculovirus vector.

47. The pharmaceutical composition of Claim 39, wherein said mammalian host is a primate.

48. The pharmaceutical composition of Claim 37, wherein said isolated p42 polypeptide comprises an amino acid sequence selected from the group consisting of:

- (a) amino acids 1 to 394 of the amino acid sequence of SEQ ID NO:2;
- (b) amino acids 1 to 394 of the amino acid sequence of SEQ ID NO:3;
- (c) amino acids 1 to 377 of the amino acid sequence of SEQ ID NO:4;
- (d) amino acids 1 to 377 of the amino acid sequence of SEQ ID NO:5; and
- (e) combinations thereof.

49. The pharmaceutical composition of Claim 48, wherein said isolated p42 polypeptide comprises an amino acid sequence selected from the group consisting of:

- (a) amino acids 1 to 373 of the amino acid sequence of SEQ ID NO:2;
- (b) amino acids 1 to 373 of the amino acid sequence of SEQ ID NO:3;
- (c) amino acids 1 to 356 of the amino acid sequence of SEQ ID NO:4;
- (d) amino acids 1 to 356 of the amino acid sequence of SEQ ID NO:5; and
- (e) combinations thereof.

50. An anti-plasmodium vaccine comprising an immunogenic amount of an isolated p42 polypeptide expressed by an insect cell which contains a vector that encodes said polypeptide, in

combination with an adjuvant selected from the group consisting of QS21 and ISA51 and mixtures thereof,

wherein said isolated p42 polypeptide is more immunogenic in a mammalian host than is the same polypeptide expressed in yeast.

51. The vaccine of Claim 50, wherein said isolated p42 polypeptide comprises an amino acid sequence selected from the group consisting of:

- (a) amino acids 1 to 394 of the amino acid sequence of SEQ ID NO:2;
- (b) amino acids 1 to 394 of the amino acid sequence of SEQ ID NO:3;
- (c) amino acids 1 to 377 of the amino acid sequence of SEQ ID NO:4;
- (d) amino acids 1 to 377 of the amino acid sequence of SEQ ID NO:5; and
- (e) combinations thereof.

52. The vaccine of Claim 51, wherein said isolated p42 polypeptide comprises an amino acid sequence selected from the group consisting of:

- (a) amino acids 1 to 373 of the amino acid sequence of SEQ ID NO:2;
- (b) amino acids 1 to 373 of the amino acid sequence of SEQ ID NO:3;
- (c) amino acids 1 to 356 of the amino acid sequence of SEQ ID NO:4;
- (d) amino acids 1 to 356 of the amino acid sequence of SEQ ID NO:5; and
- (e) combinations thereof.

53. A method of inducing an anti-plasmodium immune response in a mammal comprising administering to said mammal the vaccine of Claims 50, 51 or 52.


54. The method of Claim 53, wherein said immune response substantially reduces plasmodium parasitemia in said mammal.

55. The method of Claim 53, wherein said mammal is a primate.

If a telephone call will help expedite any aspect of the prosecution of the instant application the Examiner is encouraged to contact the undersigned at 415-781-1989, or by facsimile at 415-398-3249.

Respectfully submitted,

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